

## SECTION IV.—RIVERS AND FLOODS.

## RIVERS AND FLOODS OF OCTOBER, 1915.

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[Dated: Washington, D. C., Dec. 2, 1915.]

No floods of consequence occurred in the larger trunk streams, although a number of local floods in widely separated rivers occurred, as may be seen from the table below. These floods were due in a great majority of cases to heavy rainfall over the watersheds of the several rivers that were in flood. The high stages were successfully forecast by the local officials in charge of the respective river districts. As a rule, damages were nominal, except in the case of the Red River floods, where rather heavy damage to levees, roads, etc., appears to have been sustained.

*Floods in the United States, October, 1915.*

| River.              | Station.              | Flood stage. | Above flood stage. |       | Crest.       |       |
|---------------------|-----------------------|--------------|--------------------|-------|--------------|-------|
|                     |                       |              | From—              | To—   | Stage.       | Date. |
|                     |                       | <i>Feet.</i> |                    |       | <i>Feet.</i> |       |
| Mississippi.....    | Hannibal, Mo.....     | 13.0         | 3                  | 4     | 13.1         | 3,4   |
| Illinois.....       | La Salle, Ill.....    | 18.0         | 1                  | 1     | 18.0         | 1     |
| North Canadian..... | Canton, Okla.....     | 3.0          | 17                 | 17    | 3.8          | 17    |
| Red.....            | Arthur City, Tex..... | 27.0         | 19                 | 21    | 29.8         | 20    |
| Do.....             | Fulton, Ark.....      | 28.0         | 23                 | 28    | 30.2         | 26    |
| Trinity.....        | Dallas, Tex.....      | 25.0         | 19                 | 21    | 29.3         | 20    |
| Nueces.....         | Cotulla, Tex.....     | 13.6         | 19                 | 19    | 13.6         | 19    |
| West Pearl.....     | Pearl River, La.....  | 13.0         | 4                  | 11    | 15.1         | 5     |
| Santee.....         | Rimini, S. C.....     | 12.0         | 8                  | 12    | 12.9         | 9,10  |
| Do.....             | Ferguson, S. C.....   | 12.0         | 10                 | 14    | 12.6         | 12,13 |
| Broad.....          | Carlton, Ga.....      | 11.0         | 16                 | 16    | 11.0         | 16    |
| Staunton.....       | Randolph, Va.....     | 21.0         | 2                  | 3     | 24.8         | 3     |
| Roanoke.....        | Weldon, N. C.....     | 30.0         | 4                  | 4     | 32.0         | 4     |
| James.....          | Buchanan, Va.....     | 15.0         | 1                  | 1     | 16.0         | 1     |
| Do.....             | Columbia, Va.....     | 18.0         | 2                  | 3     | 23.1         | 2     |
| Do.....             | Richmond, Va.....     | 10.0         | 2                  | 3     | 11.7         | 3     |
| Little Kanawha..... | Glenville, W. Va..... | 22.0         | 1                  | 1     | 24.0         | 1     |
| Do.....             | Creston, W. Va.....   | 20.0         | .....              | ..... | 19.8         | 2     |

Hydrographs for typical points on several principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.

## MEAN LAKE LEVELS DURING OCTOBER, 1915.

By UNITED STATES LAKE SURVEY.

[Dated: Detroit, Mich., Nov. 5, 1915.]

The following data are reported in the Notice to Mariners of the above date:

| Data.   | Lakes.                 |                        |                        |                        |
|---|------------------------|------------------------|------------------------|------------------------|
|   | Superior.              | Michigan and Huron.    | Erie.                  | Ontario.               |
| Mean level during October, 1915:              |                        |                        |                        |                        |
| Above mean sea level at New York.....         | <i>Feet.</i><br>602.75 | <i>Feet.</i><br>579.81 | <i>Feet.</i><br>571.99 | <i>Feet.</i><br>245.17 |
| Above or below—                               |                        |                        |                        |                        |
| Mean stage of September, 1915.....            | +0.26                  | —0.15                  | —0.21                  | —0.28                  |
| Mean stage of October, 1914.....              | +0.02                  | —0.48                  | —0.07                  | —0.42                  |
| Average stage for October, last 10 years..... | +0.09                  | —0.75                  | —0.14                  | —0.70                  |
| Highest recorded October stage.....           | —0.81                  | —3.13                  | —1.71                  | —2.64                  |
| Lowest recorded October stage.....            | +1.17                  | +0.21                  | +1.19                  | +1.50                  |
| Average relation of the October level to:     |                        |                        |                        |                        |
| September level.....                          | 0.0                    | —0.2                   | —0.3                   | —0.4                   |
| November level.....                           | +0.2                   | +0.3                   | +0.3                   | +0.2                   |